



December 18, 2020

Jim Zolnierek
Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, IL 62701

Via Email: jim.zolnierek@illinois.gov

Re: Reply Comments of Greenlots in Docket No. 20-NOI-03

Dear Mr. Zolnierek:

Greenlots is pleased to submit these reply comments in the above-referenced proceeding, the *Notice of Inquiry Regarding Rate Design and Affordability with respect to Transportation Electrification and Other Beneficial Electrification* (“Notice of Inquiry” or “NOI”) initiated on August 19, 2020 in the above-referenced proceeding. These reply comments build on the Initial Comments of Greenlots (“Initial Comments”) submitted on November 16, 2020.

Reply Comments

Greenlots observes that many other commenters aligned broadly with Greenlots’ key electric vehicle (“EV”) rate design principles articulated in Greenlots’ Initial Comments, namely that price should align with cost, that rates should be jurisdiction-specific, and that technology is a key tool to manage charging and amplify the value of rate design. Greenlots offers the following additional perspectives in response to certain specific comments or themes noted in others’ initial comments.

1. Modifications to demand charges should maintain cost-reflective pricing.

Many commenters including Greenlots widely acknowledge the value of public charging – and specifically public direct current fast charging (“DCFC”) – to grow EV adoption, and further acknowledge the economic challenge that demand charges amidst low utilization and low load factors can pose to the deployment and operation of these stations.

While acknowledging the challenges, Greenlots’ perspective is balanced by the principle of aligning the price of electricity with its cost. This principle is tied to one of the key benefits that EVs have to offer the grid: when price signals incentivize EV drivers to charge during periods and at locations of grid capacity, it helps support the potential for downward pressure on rates which can benefit all ratepayers, not just the EV drivers.

A rate design such as that recommended by the Joint EV Parties to “minimize demand charges and maximize the use of TOU volumetric rates,” may have the potential to inadvertently transfer costs to other customers and detract from the downward pressure to rates that EV charging can

provide.¹ As Greenlots noted, “Non-cost-reflective EV charging rates such as demand charge credits or incentives can potentially diminish this underlying value that EV charging has to offer ratepayers.”²

Greenlots respects the advocacy of the Joint EV Parties but encourages other approaches including the use of technology and, indeed, leveraging utility ownership, that may more effectively address the immediate challenge of demand charges in a market state of low utilization. As an example, later in these reply comments Greenlots describes a New York incentive designed to address demand charges in a way that still maintains the financial incentive for site hosts to manage load.

2. Embedded meters in smart charging stations are an effective alternative to requiring separate submetering.

Some commenters suggested that separate meters may be necessary to isolate EV charging load for customers participating in EV-only rates or other load management programs.³ Greenlots offers a different perspective and encourages the Commission to look to embedded meters in smart charging stations as a more cost-effective and functional solution. Placing the cost of a second utility-grade meter upon individual customers adds a significant upfront participant cost, and is likely to significantly limit enrollment in any future EV-specific rates or load management programs tied to a secondary meter external to the charging station.

Regulators in several states such as Maryland and Minnesota have recognized the benefits of leveraging embedded metering technologies in EV charging hardware and software, and have approved utility programs that rely on these features to implement EV-specific time of use rates and/or managed charging programs. Greenlots suggests that Illinois follow suit, granting waivers to utilities or otherwise enabling them to use embedded meters for billing and eliminating the need for installation of costly additional revenue grade meters as a condition of program participation.

Leveraging the full capacity of smart networked chargers provides multiple benefits. Not only can utilities actively manage load through communication with smart chargers, they can also merge EV charging data captured by networked chargers with meter data from residential properties, disaggregating EV load for separate tracking and billing purposes. As a whole, the EV charging industry is moving toward greater accuracy and standardization, spurred in part by adoption of California Division of Measurement Standards (DMS) rules adopted in late 2019.⁴ Though not applicable to residential applications, these rules require publicly available charging stations to be tested for accuracy of 1% for L2 and 1%-2.5% for DCFC. Many commercially available L2 smart

¹ Joint Responses to ICC NOI from ChargePoint, EVgo, Rivian and Tesla at pg. 5.

² Initial Comments, pg. 5.

³ Initial comments of the Environmental Law and Policy Center at pp. 4-5; Initial comments of the Climate Reality Project – Chicago Chapter at pg. 4.

⁴ See: <https://www.cdca.ca.gov/dms/pdfs/regulations/EVSE-FinalText.pdf>

chargers already meet or exceed meter accuracy of 1%, and many hardware providers are working to ensure California DMS standards for DCFC are met in the near future.

3. Utility investment is necessary to address barriers to EV adoption in a more holistic way than rates alone.

Although the focus of the NOI is on rates, several commenters addressed the role and appropriateness of utility investment. Greenlots views utility investment – including ownership of infrastructure and charging stations – as critically important and beneficial to advance the market past early-stage barriers to adoption and accelerate it across a number of key customer segments, supporting competition, improving the environment for private investment, and, notably, serving as a market transformer. In this respect, Greenlots agrees with the inclusive and flexible role the Washington Utilities and Transportation Commission (“UTC”) envisions for utilities, as expressed in its seminal Policy Statement. This view is so salient because it is firmly rooted in a clear understanding of the state of the EV market and EVs, which even today remain an emerging technology. In its Policy Statement, the UTC wrote:

Market transformation is the process of getting these new products to a wider audience, removing market barriers, and exploiting opportunities to make the new market mainstream. For energy efficiency technologies, this is done through programs promoting the product and voluntary efficiency standards. The ultimate goal of market transformation is for the product to become accepted by the general public and adopted into codes and standards.

The challenge facing the expansion of EVs is similar to the challenge facing energy efficiency technologies before market transformation...there are three main barriers to additional adoption of EVs: price, range and charging availability, and low consumer awareness. *Charging availability and consumer awareness, in particular, are barriers that electric utilities are naturally positioned to address.* (emphasis added)⁵

Indeed, when considering the right role for the utility in a broader market context, it is necessary to differentiate between a mature, profitable private market and a nascent, largely pre-profit market that is still in the “emerging technology” stage described by the UTC. Regulatory guiderails that may be appropriate and warranted for a mature market may often be inappropriate and even detrimental for a nascent market.

Illinois’s EV charging market cannot realistically be viewed as competitive, if by competitive one means profitable. Despite the enormous value that transportation electrification writ large offers

⁵ Policy and Interpretive Statement Concerning Commission Regulation of Electric Vehicle Charging Services, *In re Rules in WAC 480-100 Rulemaking to Consider Policy Issues Related to Electric Vehicle Supply Equipment*, WUTC Docket UE-160799, at 29-30 (Issued June 14, 2017) (“UTC Policy Statement”), available at <https://www.utc.wa.gov/docs/Pages/ElectricVehicleSupplyEquipment,DocketUT-160799.aspx>.

to the grid and ratepayers, as a stand-alone commercial enterprise it remains generally unprofitable for the private market to deploy, own, and operate EV infrastructure and charging stations today. Electric utilities are uniquely positioned to address this market state – failure – and accelerate the market towards a state of profitability and sustainability.

On this key topic, Greenlots has a different perspective than that expressed by the Environmental Law & Policy Center (“ELPC”) that “the Commission should be very careful to avoid giving utilities incentives to take actions that they would take regardless of any added bonus, because taking such actions are already in their financial interest.”⁶ The notion that utilities are already investing shareholder funding in EV charging infrastructure and stations, or will in the near term, is simply not supported by data. While a handful of utilities nationally have tested deployment of very modest EV charging investments using shareholder funding, by and large utilities have been reluctant to offer incentives without a clear path to cost recovery. The few examples of investment by regulated utilities in advance of a confirmed pathway for regulated cost recovery have included after-the-fact cost recovery or are expected to. Indeed, the lack of EV charging stations that persists both nationally and in Illinois offers *prima facie* evidence that the prospect of EV-related load growth in and of itself is insufficient motivation for utilities to deploy, own and operate charging stations.⁷ Utilities are well-suited to invest in EV charging infrastructure and stations precisely because they are able to earn a regulated rate of return on that investment in a market that is otherwise economically challenging and largely unprofitable.

4. Utility-side make-ready infrastructure investment is an important starting point for utility investment.

The Natural Resources Defense Council (“NRDC”) noted that California’s recent enactment of Assembly Bill 841 now “requires ‘make-ready’ infrastructure on the utility side of the meter to be provided at no cost to customers at typical sites.”⁸ The bill calls for make-ready infrastructure on the utility side of the meter to be considered “as core utility business, treated the same as other distribution infrastructure authorized on an ongoing basis.”⁹

The policy framework set forth in the bill is an important step forward in the broader regulatory conversation about utility investment in EV-related infrastructure, but it is only a step. On its own, utility-side make-ready investment is inadequate to support growth of the EV market both as a whole and specifically in certain customer segments. Additional investment, incentives, and in a number of cases, utility ownership of infrastructure are elements required to support both customer-side make-ready and the charging stations themselves. Moreover, make-ready

⁶ ELPC Comments at pp. 2-3.

⁷ Per data from the U.S. Dept. of Energy’s Alternative Fuels Data Center and the Atlas EV Hub, Illinois ranks 28th in publicly available ports per capita and 34th in publicly available DCFC ports per capita.

⁸ NRDC Initial Comments at pg. 13.

⁹ California Assembly Bill 841 at Sec. 3, § 740.19(a). Available at: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB841

investment is inadequate to support the investment in technology required to manage EV load in a way that optimizes system efficiency and applies downward pressure to rates.

Examples of Utility Tariffs

In Greenlots' Initial Comments, Greenlots offered two innovative examples of utility program and rate designs: Avista's 2016 EV charging pilot which leveraged technology to manage load, both as a complement to rate design and as an alternative; and Green Mountain Power's ChargeFast pilot which requires participants to engage with the utility on load management strategies, with the goal of developing tools to address demand charges in such a way as to obviate the need for fundamental changes to rate design.¹⁰ Greenlots offers three additional examples below for the Commission's consideration.

Residential

Baltimore Gas and Electric's (BGE) EVSmart program was approved in January 2019. The utility offers \$300 rebates for qualified smart chargers that have direct load control capabilities. BGE established an EV-only time of use rate in May 2020 after collecting data from enrolled smart chargers. As EV adoption increases, it is expected that EV load shapes will change and responses to time of use rates could lead to new peaks. Emphasizing direct load control capabilities will enable the utility to respond to these new constraints over time with technology-enabled strategies.¹¹

Multi-Unit Dwelling and Workplace

In January 2016 the California Public Utilities Commission approved San Diego Gas & Electric's Power Your Drive Program, which enabled the installation of up to 3,500 utility-owned and operated charging stations at apartments, condominiums, and workplaces. The pilot was designed to integrate the charging of electric vehicles with the grid through day-ahead hourly rates, aligning grid demands, charging behavior, and state policy priorities. Programs like Power Your Drive that leverage smart charging technology can allow customers to set preferences or parameters that automate charging behavior like the maximum price per kWh they are willing to pay, departure time, and minimum charging needs.¹²

Public Fast Charging

In February 2019 the New York Public Service Commission approved a per-plug DCFC incentive for each of the state's investor-owned utilities.¹³ The incentive offers an annual funding offset for public DCFC demand charges. The offset is a fixed annual dollar amount which steps down each year over the seven-year term of the program. Importantly, because the incentive is issued as an

¹⁰ Initial Comments at pp. 4-5.

¹¹ See: <https://www.bge.com/SmartEnergy/InnovationTechnology/Pages/ElectricVehicles.aspx>

¹² See: <https://www.sdge.com/residential/electric-vehicles/power-your-drive>

¹³ See: https://jointutilitiesofny.org/ev/dcfc_incentive_program

annual incentive payment, rather than via a rate or tariff adjustments, site hosts are still financially incentivized to manage charging and reduce costs related to demand charges, thereby rewarding behavior that supports optimizing electricity on the grid and the trend toward downward pressure to rates for all ratepayers.

Conclusion

Greenlots commends the Commission for its ongoing interest in electric transportation, appreciates this opportunity to offer these reply comments, and looks forward to continuing to participate in this and related proceedings.

Sincerely,



Josh Cohen
Director, Policy